



**Homeland
Security**

September 29, 2004

MEMORANDUM FOR: Edward G. Buikema
Regional Director, FEMA Region V
Tonda L. Hadley

FROM: Tonda L. Hadley
Field Office Director

SUBJECT: *Montcalm County Drain Commission*
Stanton, Michigan
FEMA Disaster Number 1226-DR-MI
Public Assistance Identification Number 117-91002
Audit Report Number DD-18-04

The Office of Inspector General (OIG) audited public assistance funds awarded to the Montcalm County Drain Commission (Montcalm), located in Stanton, Michigan. The objective of the audit was to determine whether Montcalm accounted for and expended Federal Emergency Management Agency (FEMA) funds according to federal regulations and FEMA guidelines.

Montcalm received an award of \$4.38 million from the State of Michigan, Michigan State Police, Emergency Management Division (MSP), a FEMA grantee, for debris removal and repair of drains damaged by severe storms and straight-line winds that occurred May 31, 1998. The award provided 75 percent FEMA funding for three large projects.¹ We audited the costs of all projects, or 100 percent of the total \$4.38 million award. (see Exhibit 1). The audit covered the period May 31, 1998, to April 14, 2000, during which Montcalm claimed \$4.38 million and MSP disbursed \$3.29 million in FEMA funds for direct program costs

We performed the audit under the authority of the Inspector General Act of 1978, as amended, and according to generally accepted government auditing regulations. The audit included tests of Montcalm's accounting records, a judgmental sample of expenditures, and other auditing procedures considered necessary to accomplish the audit objective.

¹ Federal regulations in effect at the time of the disaster defined a large project as one costing \$47,100 or more and a small project as one costing less than \$47,100.

RESULTS OF AUDIT

Montcalm did not account for and expend FEMA funds according to federal regulations and FEMA guidelines. Specifically, Montcalm awarded a non-competitive contract for \$4,383,330 that did not comply with federal procurement standards (Finding A). As a result, fair and open competition did not occur and Montcalm's claim included \$1,037,459 in contractor profits and \$76,733 in markups on subcontractor costs that the OIG questioned as unreasonable and excessive. Montcalm also did not justify ineligible cost overruns that exceeded FEMA-approved estimates by \$2,844,779 (Finding B); and did not account for FEMA funds by project, as required (Finding C). As a result, FEMA had no assurance that claimed costs were reasonable and within the scope of work defined for the individual projects.

Further, MSP, the grantee, did not adequately manage its subgrant to Montcalm (Finding D). MSP did not: (1) ensure that Montcalm was aware of federal regulations, (2) properly process requests for project time extensions, or (3) provide FEMA with timely and accurate progress reports. As a result, FEMA Region V did not have the information needed to fulfill its grant oversight responsibilities.

Finding A: Unallowable Contracting Procedures

Montcalm did not follow federal procurement standards or FEMA guidelines in awarding contracts totaling \$4,383,330. As a result, fair and open competition did not occur and Montcalm's claim included \$1,037,459 in contractor profits and \$76,733 in markups on subcontractor costs that were unreasonable and excessive. Accordingly, we questioned \$1,114,192 (\$835,644 FEMA share). Federal procurement standards at 44 CFR 13.36:

- State that procurement transactions will be conducted in a manner providing full and open competition.
- Require that sub-grantees maintain records sufficient to detail the significant history of the procurement, including the rationale for the method of procurement, the basis for contractor selection, and basis for the contract price.
- Prohibit the use of time-and-material-type contracts unless a determination is made that no other contract is suitable and provided that the contract include a ceiling price that the contractor exceeds at its own risk.
- Require a cost analysis when adequate price competition is lacking.
- Require profit to be negotiated as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed.
- Prohibit the use of cost-plus-a-percentage-of-cost method of contracting.

Montcalm paid a contractor \$4,362,655 (which included \$844,059 for subcontractors) and additional vendors \$20,675 for performing debris removal and drain repairs. However, Montcalm did not solicit competitive bids for the work or provide evidence that there was an emergency requirement that would not permit a delay. In fact, the disaster occurred in May 1998, but the contractor did not begin work until September 1998 and did not complete the work until December 1999. These timeframes indicate that Montcalm had time to solicit competitive bids, rather than award a \$4 million contract without competition. Montcalm did not maintain records to document its

rationale for the method of procurement, the basis for contractor selection, or basis for the contract price.

Further, Montcalm did not perform a cost analysis or negotiate profit as a separate element of the price even though there was no price competition. Montcalm provided no evidence that a clear scope of work could not be developed; yet, it used a time-and-material-type contract without a ceiling. The contractor furnished Montcalm an estimate of costs per individual work site; therefore, a lump sum or unit price per site could have been developed that would have been more appropriate for the work performed. Also, Montcalm could not provide evidence of contract monitoring. Montcalm officials stated that the maintenance supervisor monitored six contractor teams comprised of six workers each. However, these monitoring efforts were not adequate because Montcalm did not maintain logs or records of contractor activity to compare to contractor billings. Without adequate monitoring, there was no assurance that contractors performed as required and in an efficient manner or that contractor billings were for approved work actually performed.

Finally, Montcalm used a component of the prohibited cost-plus-a-percentage-of-cost method of contracting. The contractor based its profit on a percentage of costs (see Exhibit 2); and the contract allowed the contractor to pass through subcontractor billings with a 10 percent markup without evidence that additional costs were incurred. This method of contracting provides an incentive to raise costs and a disincentive to save costs because the higher the costs, the higher the profit. Therefore, in addition to the contractor's profit being unreasonable, FEMA had no assurance that contract and subcontract costs before profit were reasonable. In fact, the contractor's August 1998 estimate to complete the work was \$1,538,051, while the final costs totaled \$4,383,330 (see Finding B).

The Montcalm County Drain Commissioner stated that FEMA and MSP directed him to use a specific contractor with contract terms already in place, including the \$77.75 man-hour rate. We were unable to confirm whether FEMA directed Montcalm to use the contractor because the individuals involved were not available for interviews. However, the statement appears true with regard to MSP because the rate and other contract terms were the same as those MSP negotiated with the same contractor on statewide debris cleanup for the same disaster². FEMA Region V officials agreed that the contract was inappropriate, stating that a time-and-materials type contract should never be used except in the first 72 hours of a disaster and, only then, when there is a clear threat to life or property (Category B emergency work). FEMA officials also stated that they were not aware that FEMA or MSP had directed Montcalm to use the same contractor and contract terms used by MSP.

Unreasonable Contractor Profits

The Office of Management and Budget (OMB) Circular A-122, *Cost Principles for Non-Profit Organizations*, Attachment A, states that, to be allowable, a cost must be necessary and reasonable and that a cost is reasonable if, in its nature or amount, it does not exceed that which a prudent person would incur under the circumstances prevailing at the time the decision was made to incur the

² The OIG audited MSP's \$19.86 million claim for statewide debris cleanup resulting from the same disaster. The OIG's audit report questioned \$4.49 million, of which \$3.39 million was for unreasonable contractor profits (see *Michigan State Police, Emergency Management Division*, DHS OIG Audit Report Number DD-09-04, issued June 16, 2004).

costs. The Circular also states that, in determining reasonableness, consideration should be given to such factors as generally accepted sound business practices, arms length bargaining, federal regulations, and terms and conditions of the award. We considered these factors and concluded that Montcalm did not act prudently and that contract costs were not reasonable because they included excessive profits.

During the audit, the contractor provided us with a breakdown of its \$77.75 rate per man-hour that included labor, benefits and fringe, equipment, insurance, lodging, meals, overhead, and a 31.4 percent profit margin (profit as a percentage of price), which equaled a 45.8 percent profit rate (profit as a percentage of costs). We considered this profit rate excessive and, therefore, analyzed the contractor's rate. In our analysis, we made adjustments to cost elements that decreased the contractor's \$77.75 hourly rate to a more reasonable rate of \$54.83, a reduction of \$22.92, or 29.5 percent ($\$22.92 / \77.75).

As shown in Exhibit 2, the largest adjustment to the contractor's hourly rate resulted from reducing the contractor's profit rate to 7 percent. We discussed the contractor's profit rate with FEMA Region V officials who advised that 7 percent of costs was a reasonable rate of profit for this type of work. These officials concurred that a contractor's risk is minimal under a cost reimbursement/hourly contract when compared to the risks involved under a fixed price (lump-sum) or fixed-unit-price contract, which should have been used in this case.

Based on our judgment and experience, we agreed with the Region's suggested 7 percent profit rate, but gathered corroborating evidence from two other sources. First, we discussed profit rates with three contracting officials who work for the U.S. General Services Administration (GSA)³. The GSA contracting officials concurred that for the type of work involved, 10 percent would define the high end for a reasonable rate of profit. One stated that 7 percent would be more appropriate for projects costing millions of dollars. As another source of evidence, we reviewed FEMA's Cost Estimating Format (CEF) for construction projects, which indicated that a 10 percent profit rate is a maximum, but for projects ranging from \$3 million to \$5 million, 5.0 to 5.5 percent is reasonable.⁴

Based on the Region's advice and information from two other sources, we concluded that 7 percent was a reasonable profit rate for Montcalm's contractor. Further, after analyzing the contractor's hourly rate, we concluded that \$54.83 was a reasonable price per man-hour. Therefore, we questioned \$1,037,459, which represents excessive and unreasonable profits (the difference between \$54.83 and the contractor's \$77.75 hourly rate times the 45,255 hours billed by the contractor ($\$22.92 \times 45,255$ hours)).

Unallowable Markups on Subcontract Costs

In addition to excessive profits contained in hourly rates, we found that markups on subcontractor costs also represented unreasonable profit. Subcontractors invoiced the lead contractor \$767,326. These costs were passed on to Montcalm with \$76,733 added as a 10 percent markup on cost without

³ GSA offers more services than any commercial enterprise in the world and annually brings hundreds of thousands of federal customers together with more than 9,000 contractors (source: GSA's website).

⁴ The CEF is a forward pricing methodology FEMA developed to better estimate the cost of large projects. Additional information about the CEF is available at <http://www.fema.gov/rrr/pa/cef2.shtm>.

evidence that any additional cost had been incurred for subcontractors. We found no evidence that Montcalm or the contractor monitored the work of these subcontractors or attempted to negotiate rates. According to 44 CFR 13.36(f)(4), the cost-plus-a-percentage-of-cost method of contracting is explicitly prohibited. As previously stated, this method of contracting provides an incentive to raise costs and a disincentive to reduce costs because the higher the costs, the higher the profit. Accordingly, we questioned \$76,733 for unallowable markups on subcontract costs.

Finding B: Ineligible Cost Overruns

Montcalm claimed costs without justification that were 2.8 times more than the FEMA-approved project estimates. On August 13, 1998, the contractor provided Montcalm a \$1,538,051 estimate of total costs based on its rate of \$77.75 per hour. Based on that estimate, the FEMA inspector wrote three Disaster Survey Reports (DSRs) for the three projects.⁵ These three initial DSRs totaled \$1,538,551, as of September 21, 1998 (see Exhibit 1). As noted on DSR 91971, the \$500 difference between the contractor's estimate and the total DSRs was for "contractual service work remaining." However, the final costs were \$4,383,330, more than 2.8 times the approved estimate (\$4,383,330 / \$1,538,551).

According to 44 CFR 206.204(e):

During the execution of approved work, a subgrantee may find that the actual project costs are exceeding the approved DSR estimates. Such cost overruns normally fall into the following three categories:

- (i) Variations in unit prices;
- (ii) Change in the scope of eligible work; or
- (iii) Delays in timely starts or completion of eligible work.

The subgrantee shall evaluate each cost overrun and, when justified, submit a request for additional funding through the grantee to the [Regional Director] RD for a final determination. All requests for the RD's approval will contain sufficient documentation to support the eligibility of all claimed work and costs. The grantee shall include a written recommendation when forwarding the request. The RD shall notify the Grantee in writing of the final determination.

We found no evidence that the three justifications listed above were relevant to Montcalm's claim. The work was billed at a \$77.75 per-hour rate that did not change. We did not identify any changes in the scope of eligible work, and the work began shortly after the DSRs were written. We also found no evidence that Montcalm submitted a request for additional funding or that MSP requested FEMA's approval of additional funding until closeout.

We asked Montcalm officials why the final costs were more than 2.8 times the contractor's estimate (\$4,383,330 / \$1,538,051). Montcalm replied that: (1) they had only 3 days to estimate the costs; (2) they videoed the damage by helicopter; (3) the contractor walked the damaged areas; and (4)

⁵ A DSR identified the eligible scope of work and an estimate of costs (44 CFR 206.202(d). More than one DSR could be used to describe an individual project (44CFR 206.201(i))

together, Montcalm, the contractor, and FEMA developed the estimate to repair and clean debris from 300 miles of drains. We pointed out that the contract price could have been negotiated by site as they walked the drains. Montcalm did not disagree. Although they stated they only had three days to estimate the costs, the August 1998 estimate was prepared more than 2 months after the disaster even occurred. Montcalm also stated that they had no engineers on staff and local contractors were not capable of performing such a large job. Montcalm waited until the contractor recommended by FEMA and MSP was available. Montcalm officials also stated that when they asked what would happen if costs were underestimated, the FEMA inspector replied, “Don’t worry, I’ll take care of you. FEMA will pay for whatever it takes to get the job done.” We could not verify whether the FEMA inspector had made this statement.

Finding C: Deficient Accounting Procedures

Montcalm’s accounting records were not sufficient to allocate costs to specific projects. According to 44 CFR 13.20(b)(2), grantees and subgrantees must maintain records that adequately identify the source and application of funds provided for financially assisted activities. Further, FEMA’s September 1996 Public Assistance Guide required applicants to establish a file for each site, with the DSR (project) number for each site used as the reference point for the accumulation of project information. Accurate and complete documentation by project is necessary to facilitate review and ensure that claimed costs are reasonable and within the scope of work defined for the individual projects.

Montcalm allocated costs by site. As shown in Exhibit 1, the FEMA inspector wrote the first two projects on August 14, 1998, for repairs to drains and slopes (DSR 91970) and debris removal (DSR 91971) at 52 locations. On September 21, 1998, the FEMA inspector wrote the third project (DSR 75739) for debris removal at an additional 72 locations. However, after reviewing documents and conducting interviews of officials at FEMA Region V, MSP, and Montcalm, we could not reconcile the projects to the 52 or 72 locations cited in the DSRs. Further, officials we interviewed could not explain how they allocated costs to the three projects.

Finding D: Inadequate Subgrant Administration

MSP did not adequately manage its subgrant to Montcalm. Specifically, MSP did not: (1) ensure that Montcalm was aware of, and complied with, federal regulations; (2) properly process requests for project time extensions; or (3) provide FEMA with timely and accurate progress reports. As a result, FEMA Region V did not have the information needed to fulfill its grant oversight responsibilities.

Subgrantee Monitoring

MSP did not ensure that Montcalm was aware of, and complied with, federal regulations. According to 44 CFR 13.37(a) 2, states are responsible for ensuring “that subgrantees are aware of requirements imposed upon them by Federal statute and regulation.” Further, 44 CFR 13.40, states the following:

- (a) Grantees are responsible for managing the day-to-day operations of grant and subgrant supported activities. Grantees must monitor grant and subgrant supported activities to assure compliance with applicable Federal requirements

and that performance goals are being achieved. Grantee monitoring must cover each program, function or activity.

As discussed in Findings A, B, and C, Montcalm did not comply with federal regulations related to procurement, cost overruns, and accounting for projects Montcalm officials told us that they considered themselves spectators and they were not aware of the federal regulations used as criteria in the OIG audit. While MSP's actions or inactions did not relieve Montcalm of its responsibility to comply with federal regulations, MSP should have monitored Montcalm's performance to ensure compliance. We contend that MSP also should have provided Montcalm with better technical assistance, training, and guidelines.

Time Extension Requests

MSP did not properly process three requests for project time extensions filed by Montcalm for two debris removal (Category A) projects totaling \$3,908,582. As a result, FEMA had no assurance that work was performed timely and cost-effectively.

According to 44 CFR 206.204(c), eligible debris removal work should be completed within 6 months of the disaster declaration. This regulation allows the grantee (MSP) to extend the deadline an additional 6 months for "extenuating circumstances or unusual project requirements beyond the control of the subgrantee." Requests for time extensions beyond the grantee's authority must be submitted by the grantee to the FEMA Regional Director for approval and must include a "detailed justification for the delay and a projected completion date."

Further, MSP's State Administrative Plan stipulated that projects not complete within the time limits, including any time extensions granted, would be considered expired. It also stated, "The state share will not be paid on expired projects . . ." and ". . . Federal funds advanced or paid on projects that are expired must be repaid."

This disaster (FEMA Disaster Number 1226-DR-MI) was declared on June 24, 1998. Montcalm did not complete the two debris removal projects until December 1999, or 18 months after the disaster declaration. Montcalm sent MSP three requests for time extensions dated December 11, 1998, April 12, 1999, and August 16, 1999. However, MSP could provide no evidence that it took any action to process the requests or obtain the required FEMA approval for time extensions beyond the initial 12 months of the disaster. Adherence to project time limits is necessary for effective project management, cost control, and effective and efficient monitoring of project activity.

Quarterly Progress Reports

MSP provided FEMA with only one required quarterly progress report during the 20 months Montcalm's claim was open. Even worse, that progress report was grossly misleading as to the actual status of Montcalm's three projects. As a result, FEMA Region V did not receive required status information that was essential for the performance of its oversight responsibilities for Public Assistance.

According to 44 CFR 206.204(f), grantees are to submit progress reports to the Regional Director quarterly. Such reports will describe the status of those projects on which a final payment of the federal share has not been made and “outline any problems or circumstances expected to result in non-compliance with the approved grant conditions.” MSP’s State Administrative Plan also required MSP to furnish FEMA with progress reports quarterly.

The FEMA inspector wrote the first two DSRs on August 14, 1998; and Montcalm received its final payment of federal funds on April 14, 2000, or 20 months later. However, MSP was able to provide us with only one quarterly progress report that contained information relevant to Montcalm under Disaster 1226. We assumed the report was for the quarter ending December 31, 1999, because it was entitled “State of Michigan—Status of Open Large Projects—Quarterly Report—January 2000.”

The portion of the report for Montcalm included the following data:

DSR	DSR Amount	% Done	P4⁶	Comment
91971	\$ 899,912	100%	no	Site inspection complete—Desk audit pending
75739	411,920	100%	no	Site inspection complete—Desk audit pending
91970	226,719	100%	no	Site inspection complete—Desk audit pending

Anyone reading this information could justifiably assume that all work was complete and the costs had not exceeded the original DSR estimates totaling \$1,538,551. Because none are mentioned, one could also assume that there were no problems or circumstances expected to result in noncompliance with the approved grant conditions. However, most of those assumptions would be wrong. The work was completed in December 1999, which was well beyond the approved time limit, and the costs had grown to more than \$4 million.

By not filing accurate and timely progress reports, MSP did not provide critical information on program activities as required. As a result, FEMA was not able to properly monitor the projects and notify MSP when action was needed to help ensure successful and timely completion of the projects.

RECOMMENDATIONS

The Office of Inspector General recommended that the Regional Director, FEMA Region V:

1. Disallow \$1,114,192 in questioned costs.
2. Direct the State of Michigan, Michigan State Police, Emergency Management Division, to develop and implement procedures for future disasters to ensure the following:

⁶ The “P4” report is generally signed by the subgrantee to certify the final amount claimed for each project.

- Subgrantees are knowledgeable of and follow federal regulations and FEMA guidelines related to (a) procurement, (b) cost overruns, and (c) accounting for grant funds by project.
- Requests for time extensions are filed by subgrantees and processed by the State in a timely manner as required.
- Quarterly progress reports are timely and accurate.

DISCUSSION WITH MANAGEMENT AND AUDIT FOLLOW-UP

We discussed the results of the audit with MSP officials on September 10, 2003 and with Montcalm officials on November 24, 2003. These officials generally disagreed with our findings and recommendations, but elected to withhold formal comments until after the report is issued. We discussed the results of the audit with FEMA officials on September 9, 2003.

Please advise this office by December 28, 2004, of the actions taken or planned to implement our recommendations. Please include target completion dates for any planned actions.

Should you have any questions concerning this report, please contact me at (940) 891-8900. The major contributors to this report were Paige Hamrick, Stuart Weibel and Jerry Meeker.

EXHIBIT 1

Montcalm County Drain Commission
FEMA Disaster Number 1226-DR-MI
Schedule and Scope of Projects

Schedule of Projects

Project #	Cat.	DSR #	D a t e s o f D S R s					Total Project
			8/14/98	9/21/98	12/30/99	2/22/00	2/23/00	
75739	A	75739		\$ 411,920				
"	"	89543			\$ 295,815			\$ 707,735
91970	D	91970	\$ 226,719					
"	"	89544			(198,637)			
"	"	90884				\$ 41,192		
"	"	90886					\$ 405,474	474,748
91971	A	91971	899,912					
"	"	89545			27,963			
"	"	90883				(41,192)		
"	"	90885					2,314,164	3,200,847
Totals by date:			<u>\$1,126,631</u>	<u>\$ 411,920</u>	<u>\$ 125,141</u>	<u>\$ 0</u>	<u>\$2,719,638</u>	
Cumulative totals:			<u>\$1,126,631</u>	<u>\$1,538,551</u>	<u>\$1,663,692</u>	<u>\$1,663,692</u>	<u>\$4,383,330</u>	<u>\$4,383,330</u>

Scope of Projects**Project 75739 (Category A – Debris Removal)**

DSR 75739: “Provide contract labor, equipment and materials to repair right-of-ways and drain slopes along 200 miles of drains located in 104 drain sections at 72 locations not included in DSR #91970.”

DSR 89543: “Estimate for removal of debris and slope repairs was derived from applicant furnished documentation. Actual costs exceeded this estimate. Personnel in the DFO gave permission for the additional work that generated the cost overrun in reference to DSR 75739.” (The DSR contained no description of the “additional work.”)

Project 91970 (Category D – Water Control Facilities)

DSR 91970: “Provide contract labor, equipment and materials to repair right-of-ways and drain slopes along 200 miles of drains located in 104 drain sections at 52 locations.”

DSR 89544: “Applicant completed debris removal and slope repairs at these sites at a sizeable under-run Deobligate excess funds.”

DSR 90884: “To re-obligate the Category D cost component from DSR 75739.”

DSR 90886: “For a large project overrun to return the eroded drain slopes to their original cross section for 72 branches and reaches with almost 300 miles of affected drains. This also includes some re-seeding to stabilize banks and minimize run off.”

Project 91971 (Category A – Debris Removal)

DSR 91971: “Provide contract labor and equipment to clear and remove trees, limbs, stumps and brush along 200 miles of drains located in 104 drain sections at 52 locations.”

DSR 89545: “Applicant has completed the removal of debris within the drains as referred to in DSR #91971. . . . Claimed costs exceeded the estimates.”

DSR 90883: “To de-obligate the 10% of costs on DSR 75739 that should have been picked up in Category D. They will be re-obligated on DSR 90884.”

DSR 90885: “This debris reduced the hydraulic capacity of over 200 miles on 72 reaches and branches of the drain system. This DSR is for the large project overrun for debris removal of the disaster-generated debris.”

EXHIBIT 2

Montcalm County Drain Commission
FEMA Disaster Number 1226-DR-MI
Calculation of Reasonable Rate per Man-Hour

<u>Cost Category</u>	<u>Cost per Contractor</u>	<u>OIG Adjustments</u>	<u>Reasonable Cost per OIG</u>	<u>Notes</u>
Labor per Hour-Foreman	\$ 24.57		\$ 24.57	1
Labor per Hour-Journeyman	22.55		22.55	1
Benefits & Fringe per Crew-Hour	20.91		20.91	2
Equipment per Crew-Hour	20.42		20.42	3
Insurance per Crew-Hour	4.71		4.71	
Lodging per Crew-Hour	8.34	(\$ 8.34)	0.00	4
Meals per Crew-Hour	<u>4.17</u>	<u>(4.17)</u>	<u>0.00</u>	4
Subtotal Costs per Crew-Hour	<u>\$105.67</u>	<u>(\$ 12.51)</u>	<u>\$ 93.16</u>	
Admin. Overhead per Crew-Hour	\$ 1.00	\$ 8.32	\$ 9.32	5
Total Costs per Crew-Hour	<u>\$106.67</u>	<u>(\$ 4.19)</u>	<u>\$102.48</u>	
Profit per Crew-Hour (46% of costs)	\$ 48.83	(\$ 41.66)	\$ 7.17	6
Rate per Crew-Hour (Costs + Profit)	<u>\$155.50</u>	<u>(\$ 45.85)</u>	<u>\$109.65</u>	
Rate per Man-Hour (Crew Rate / 2)	<u>\$ 77.75</u>	<u>(\$ 22.92)</u>	<u>\$ 54.83</u>	7

Notes:

- The contractor calculated the following labor rates assuming a 72-hour workweek with overtime (over 40 hours) paid at time and one half the regular rate:

- Foreman $(\$20.10 \times 40) + [\$20.10 \times (1.5 \times 32)] = \$1,768.80/72 \text{ Hours}$
- Journeyman $(\$18.45 \times 40) + [\$18.45 \times (1.5 \times 32)] = \$1,623.60/72 \text{ Hours}$

We did not adjust these rates, but found them to be excessive. According to the contractor's time sheets, the actual average workweek was about 45 hours. Basing the labor rates on actual hours worked would have reduced the rates more than \$3.00 per hour.

- The \$20.91 rate for benefits and fringe per [2-man] crew-hour included pension (\$6.13), vacation and holiday (\$3.30), wage taxes (\$4.00), health and welfare (\$5.60), and bonus and other (\$1.88).

EXHIBIT 2
(Continued)

3. The \$20.42 rate for equipment per crew-hour included a chipper (\$4.50), lift truck (\$14.92), and saws and tools (\$1.00).
4. We deducted these costs because the contractor employed a local labor force and local subcontractor and, therefore, did not incur costs for lodging and meals.
5. The contractor's \$1.00 rate for "administrative overhead" **per crew-hour** appeared low compared to most for-profit entities. Therefore, we increased the \$1.00 rate to \$9.32 based on 10 percent of other costs before profit ($\$93.16 \times 10\%$), which was more reasonable based on our judgment and experience.
6. Based on our analysis, we decreased the profit rate (profit as a percentage of costs) to 7.0 percent ($\$7.17 / \102.48), which equates to a profit margin (profit as a percentage of price) of 6.5 percent ($\$7.17 / \109.65). Based on costs per the contractor, the contractor's profit rate was 45.8 percent ($\$48.83 / \106.67) and profit margin was 31.4 percent ($\$48.83 / \155.50).
7. The contractor charged a flat \$77.75 rate per man-hour based on a 2-man crew consisting of one journeyman and one foreman (see Note 1). However, a one-to-one ratio did not exist between foreman and journeymen crews on work billed to Montcalm. Contractor crew sizes averaged four persons, which included one foreman and three journeymen. Therefore, basing labor rates on actual job positions used would have resulted in a lower rate per man-hour because journeymen were paid less than foremen were.